Microsoft Exchange Server

Job Aid 1

Planning Guide

Abstract

This job aid will help you to fast track your architectural planning and decision making process.

This is a preview edition of the Microsoft Exchange 2000 Server Upgrade Series. The final documentation will be available in November 2000.

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INTRODUCTION

This document is your starting point in gathering the information while planning to implement Exchange 2000. Please fill in as much information as you could. This document follows the MSF principles and is very easily transformed in a report. Here is quick overview of each phase:

Vision/Scope: An overview of the business case for migrating to Exchange 2000, the goals of the plan, and how the plan will be executed. Included in this phase is the project justification and Executive sponsorship.

Planning: The overall scope, which clearly defines the boundaries of what is included in the migration to Exchange 2000. It includes the business case for making this change, along with the timing of the deployment, a budget, how you will gain users' cooperation and engender enthusiasm, the service level you plan to provide, and the results you hope to achieve.

Development: A plan for configuring and installing Exchange 2000, including testing of scenarios.

Proof of Concept: Describes the testing of all physical aspects of the migration and deployment development plan such as integration, coexistence, and deployment in an environment that closely replicates the planned environment.

Pilot: Outlines implementing the entire plan on a representative pilot group of users.

Deployment: A detailed rollout schedule and logistics plan for actual deployment to users' desktops.

Post Implementation Review: An implementation review, complete with any changes necessary to move forward, lessons learned for the next deployment, and considerations for application development and new uses for Microsoft Exchange 2000.

VISION/SCOPE

Business Requirements

Business requirements define overall the business purpose of the electronic mail system and the value that the mail system provides to the organization. Answer the following questions to help define these areas and determine the scope of usage as it may affect the architecture.

Question	Detailed Answer	Completed
Please describe the importance of electronic mail to your organization's business.		☐
Does your company use electronic mail to communicate to clients or suppliers outside your organization?		☐
If yes, what are your current inter-enterprise electronic mail communication issues or concerns?		☐
Are there plans to expand the use of electronic messaging as a transport between applications?		☐
If so, how many applications will this involve?		☐
What is the deployment scope?		☐
Is your corporation involved in a telecommuting initiative?		☐
If yes, please describe the program.		☐
What percentage of office-based		☐

employees will access electronic mail from remote locations?		
What proportion of potential mail users currently has access to electronic mail?		☐
Identify mission critical applications		☐
Identify type of the applications		☐
Identify and analyze potential risks		☐
Quantify potential impact of the risk		☐

Organizational Profile

Electronic mail flow generally follows communication patterns that already exist within workgroups or business units of a larger organization. The 80-20 rule generally applies to this flow—80 percent of communication stays within a person's workgroup, and the remainder flows outside the workgroup.

Questions	Detailed Answers	Completed
What is your enterprise's organizational structure?		☐
What are the various business units?		☐
Which share resources, and which resources do they share?		☐
How does your enterprise make information technology decisions?		☐
What other relationships between the organizations would result in message flows?		☐

Which organizations that rely extensively on out-sourcing or contracting are likely to produce a substantial amount of electronic mail flow?	PLANNING	☐

Technical Infrastructure

The next series of questions is designed to gather information about existing electronic-mail-related and technical support infrastructure. This information is used during the design process to determine the best method of implementing a robust electronic mail system that uses existing resources.

Question	Detailed Answer	Completed
Determine project scope		☐
Do we have a secure project sponsorship		☐
Define preliminary resources		☐
Secure core resources		☐
What are Corporate Business Objectives		☐
Determine Technology Goals and Objectives		☐
Formulate Preliminary Cost/Benefit Analysis		☐
Determine Major Milestones		☐

Planning is the overall scope, which clearly defines the boundaries of what is included in the migration to Exchange 2000. It includes the business case for making this change, along with the timing of the deployment, a budget, how you will gain users' cooperation and engender enthusiasm, the service level you plan to provide, and the results you hope to achieve.

Teams and Roles

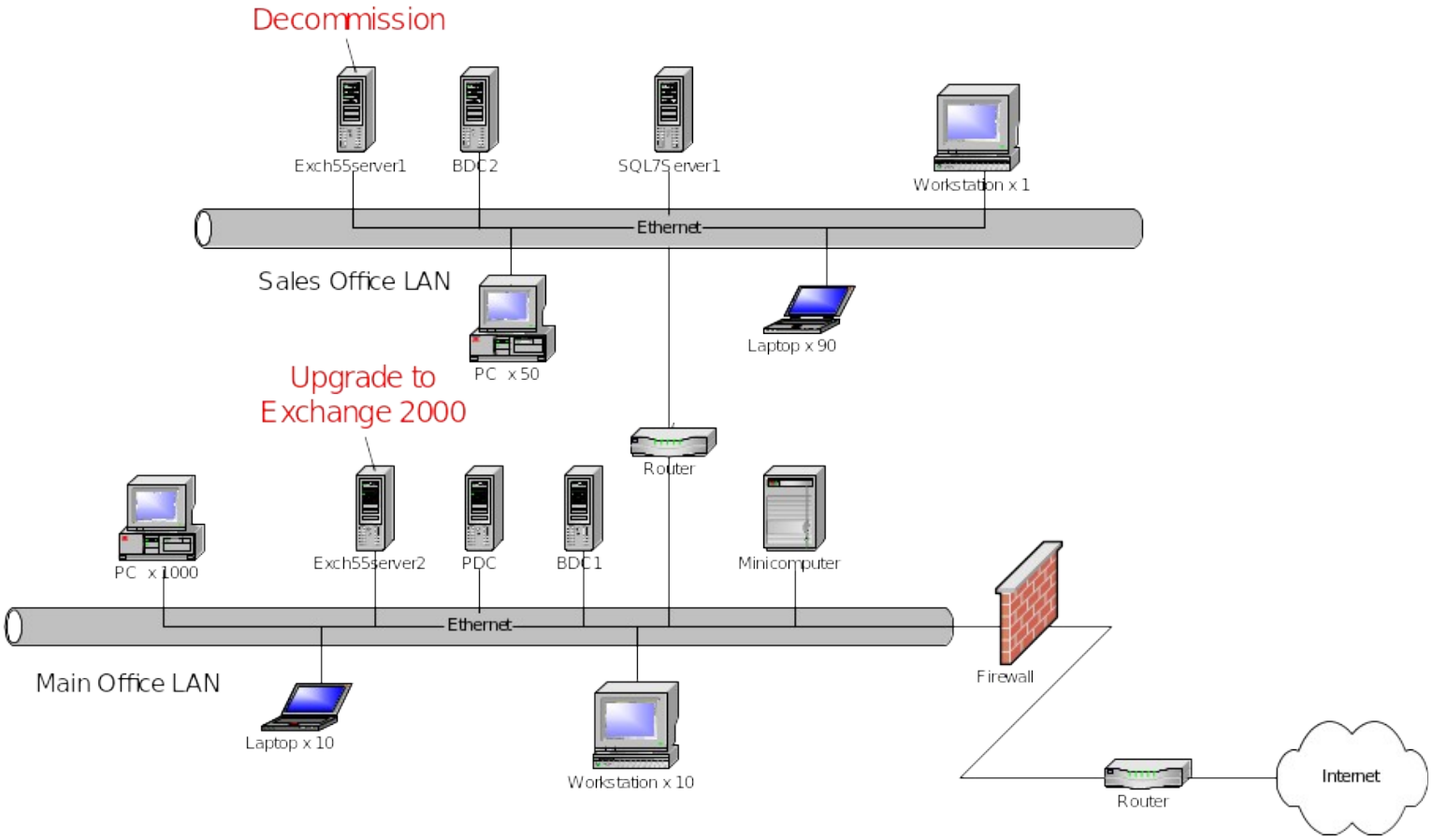
Role	Role Description (please define roles)	Available	When
Do we have defined teams, and team members that are going to work on project?			
Project manager		☐	
Architect	Overall responsibility of the messaging system technical design	☐	
Implementation	Oversees physical implementation of messaging system components	☐	
Infrastructure administrator		☐	
Deployment administrator		☐	
Desktop administrator		☐	
Intranet/internet administrator		☐	
Database server administrator		☐	
Browser administrator		☐	
Messaging administrator		☐	
Network administrator		☐	
Testing/quality assurance team	Ensures messaging system conformance to functional requirements and corporate standards	☐	
User education/training/communication		☐	
Logistics management		☐	
Help Desk Coordinator		☐	
Development		☐	

Technical Support Manager		☐
Operations	Monitors and supports mail transport	☐

CURRENT NETWORK OVERVIEW

Detail Current Computing Environment

This is a sample for network diagram. Please attach your current network design.


Decommission
Exch55server1
BDC2
SQL7Server1
Workstation x 1
Ethernet
Sales Office LAN
PC x 50
Laptop x 90
Upgrade to Exchange 2000
Router
PC x 1000
Exch55server2
PDC
BDC1
Minicomputer
Ethernet
Main Office LAN
Laptop x 10
Workstation x 10
Firewall
Router
Internet

Please detail geographic locations and considerations

Pleas detail technology architecture

Detail connectivity LAN/WAN	Do we need to make an upgrade?	When?
Routers		
Switches		
WAN links		

Review support environment	Is it firm?	What are the consequence for not meeting SLA?
SLA to end users		
Backup routes		
SLA from service providers		

Please fill in all information	
Supply the name and phone number of the primary technical contact for the WAN.	
If there are additional contacts in each business unit, please supply their names as well.	
What network protocols does your WAN support?	
Will there be a change in the supported protocols in the future?	
If exceptions are made to the standard protocols, how are those decisions made?	
Please attach a diagram of the WAN.	
Detail the speed of the line between the locations and if possible, the current utilization level of those links.	

OVERVIEW OF NETWORK OPERATING SYSTEMS

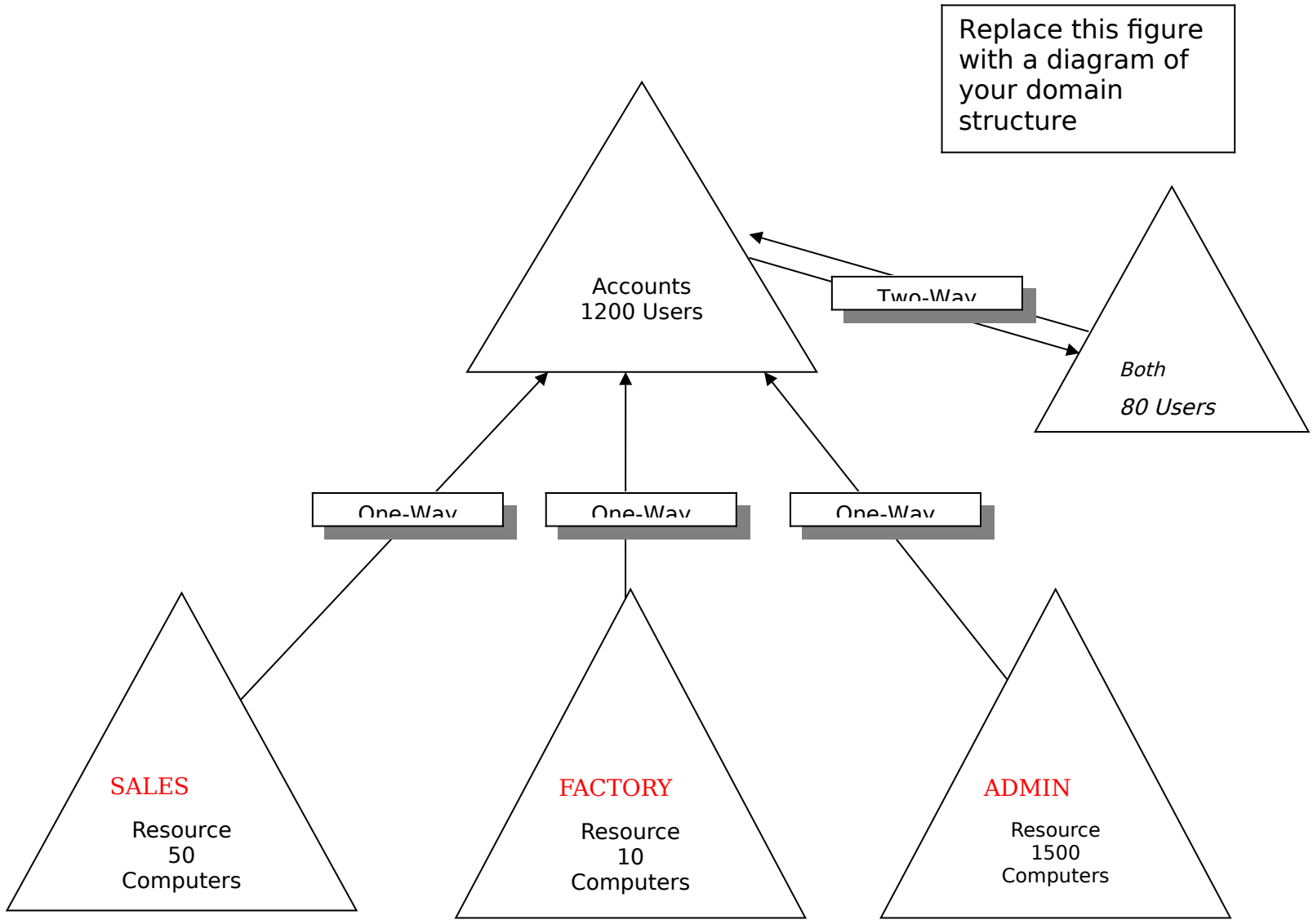
Number of Window NT Domains	Comments
Number of trusts	
Number of groups used to give permissions to users	
Who owns right to give permissions	
Group policies	

Any other NOS that coexist with Windows NT	Comments
Novell based	
Unix based	
Other	

Detail current and future information technology standards	Comments
Identify Coexistence Strategies	
Identify interoperability issues within the company (operating systems supported, topology, protocol, etc.)	
Preliminary Design Objectives	

Detailed server hardware and software inventory	Comments
For more detailed section please refer to the end of job aid.	

Sample Windows NT 4.0 diagram



Infrastructure – Other Applications

Terminal Services

Is there a need for Terminal Services?	Comments
What are the benefits to the business?	
Determine licensing requirements	
Do we have a document for the existing computing environment	
We need to develop a plan for implementing Terminal Services including networking, security, and domain structure	

Infrastructure Change Configuration Strategy

Do we have a defined user and organization change and configuration management process?	Comments
What are desired Exchange 2000 change and configuration management features	
Did customer evaluated other applications for Software Distribution, etc (For example, SMS, Tivoli, etc)	

OVERVIEW OF THE NETWORKING AND REMOTE ACCESS SERVICES

Networking Services	Comments
DNS	
DHCP	
WINS	
Remote Access	
VPN Solution	
Identify Coexistence Strategies	
Identify interoperability issues within the company (operating systems supported, topology, protocol, etc.)	

Technical Support

	Comments
Describe the technical support structure for electronic mail users. Please include escalation and problem tracking procedures. Describe the training provided for analysts supporting the current electronic messaging system. Describe the technical support structure for the current electronic messaging system transport. Please include the escalation procedures and any problem tracking procedures. Describe the training provided for analysts supporting the current electronic mail system transport. Describe the training provided to users when they first start using the electronic mail product.	

OVERVIEW OF THE E-MAIL INFRASTRUCTURE

Existing Messaging System Architecture

Answer these questions and provide the requested information to document the existing messaging system architecture:

Questions	Detailed Answers	Completed
Describe your enterprise-wide messaging system architecture (Please attach your messaging system topology diagram that illustrates the basic architecture)		
What messaging systems does your enterprise use?		
What is the approximate number of users supported by these systems?		
What kind of messaging gateways does your enterprise use? Please attach any information on the traffic that goes through these gateways.		
Is there a central messaging/networking management and administration team?		
If not, how is the messaging enterprise managed?		

Mail Enabled Application Compatibility with Exchange 2000

Create detailed Application Inventory Document	Comments
Please identify any application that is dependant on existing e-mail system	
Prioritize the applications by how critical they are to running your business	

User Census

Indicate, by geographic location, the total number of users currently with mail or messaging systems at your environment. Use the table below as a reference for collecting this information and the table that follows it to input the data. The Business Manager may refer you to an additional resource to provide this information.

Business unit or	Location	Number of users	Comments
Sales	North America	100 Offices with 50 Workers	
	Europe	100	
	Asia	100	
Business unit or	**Location**	**Number of users**	**Comments**

Directory Services

Do you have an electronic mail directory that resides in a database other than the current electronic mail systems proprietary Directory Server? If yes, please attach as much information as possible regarding the data format and accessibility
Do current electronic mail network naming standards exist? If yes, please attach a copy of those standards. If no, please describe how network, post office, and mailbox names are determined. Do all production message stores participate in an automated directory synchronization process? How many entries are currently in the electronic mail directory?

Technical Support

Describe the technical support structure for electronic mail users.
Please include escalation and problem tracking procedures. Describe the training provided for analysts supporting the current electronic messaging system. Describe the technical support structure for the

DEVELOPMENT

current Development messaging system transport.

Please include the escalation procedures and any problem tracking procedures.

Exchange 2000 Migration Planning Checklist

This checklist provides guidelines regarding what parts of your infrastructure you will need to review when you build your Exchange 2000 project plan. It will help you through planning your Exchange 2000 server installation order, both at a site level and a server level.

Questions:
Please Identify Exchange Server Types and Numbers
Mailbox Servers
Public Folder Servers
Connector Servers
Real-Time Collaboration Servers
Data Conferencing Servers
Video Conferencing Servers
Instant Messaging Servers
Chat Servers

Determine Office Strategies

List your offices and their types in the following table. Expand the table as necessary for additional offices. Valid office types are Global Headquarters (GHQ), Regional Branch Office (RBO), Large Branch Office (LBO), Medium Branch Office (MBO), and Small Branch Office (SBO). **Note**: SBOs should have no Exchange servers.

Office Name	Office Location	Office Type	WAN Link speed	# Exchange Servers

For each office listed in the previous table, you will need to determine whether you have any Exchange 2000 plans. These plans include upgrading current servers, installing new servers, migrating resources (mailboxes, public folders, or connectors, and which connectors) to Exchange 2000 servers. List these in the following table.

Office Name	*Explain Exchange 2000 Plans*

Determine Exchange Site Strategies

List your current Exchange sites here.

Site Name	*Geographic Description*	*WAN link speed*	*Number and Roles of Exchange Servers*

Once you have listed your sites, determine what plans you have for Exchange 2000 in each of them. This may map directly to your office plans from the previous section, if each office is its own site.

Site Name	*Explain Exchange 2000 Plans*

Having outlined your Exchange 2000 plans for each site, you will now build a sequence for these actions. If you have no plans for Exchange 2000 in any specific site, you may leave that site out of this table.

Sequence	Site Name
1	
2	
3	

Determine Exchange Server Plans

For each server in your organization, determine if it will be upgraded, if it will have its resources migrated to another system, or if it will be left alone. Remember that some Exchange 5.5 connectors are not available in Exchange 2000.

Server Name	Server Type	Exchange 2000 Plans

For the servers listed in the above table as **upgrade** or **migrate**, you need to determine sequencing. List all servers in these classes below and their sequence. Ensure that this sequence agrees with your sequencing in your site sequencing table.

Sequence	Server Name	Exchange 2000 Plans
1		
2		
3		

Determine Project Plan Dates

Once you have your Exchange 2000 server sequence determined, you can build detailed Exchange Infrastructure diagram and a project plan for implementing these actions. You will want to use tools such as Microsoft Visio and Microsoft Project for this.

Remediate Risk Assessment

List Project Show stoppers

Policies

Electronic Mail is very similar to other forms of communication. However, it also has its unique characteristics and capabilities that can present problems if policies are not developed and communicated to users. An example of a common policy is the security of electronic mail IDs and passwords. Another policy that has a direct effect on a Microsoft Exchange environment is the size of attachments that are permitted to be sent. A large attachment sent to many users can degrade performance across the entire electronic mail network. Please provide copies of existing electronic mail policies and the methods by which these policies are distributed to users.

Operational Procedures

The Microsoft Exchange network has multiple processing components that must be monitored on a continual basis. The Mail network also relies on network operating system and physical network services. To operate reliably, each of these services and components requires ongoing monitoring and procedures developed to.

In this section, you will gather these types of information:

- Backup and restore
- Disaster recovery
- Proactive support and preventive maintenance

Backup / Restore

Answer these questions to document existing backup and data restoration capabilities:

Please describe the procedures currently in place to backup and restore data contained in the current electronic mail message
How often is the message store backed up?
What backup device and software do you use?
How long do you keep your backup data?
What backup method (full, incremental, and so on) do you use for your message store?
Are users able to access the system during this process?
What restoration procedures exist for both a full Post Office restore and individual mailbox restore?

Disaster Recovery

Answer these questions to document your mail environment disaster recovery procedures:

Do you have offsite data backups?
Do you have a hot spare server?
Do you have a plan to recover from a physical disaster, such as a fire or flood?
Do procedures that ensure system security against intruder attack exist?

Proactive Support/Preventive Maintenance

Please provide any preventive maintenance procedures for each component of the mail network.

Describe any tools used to detect and repair mail network problems proactively.

Service Metrics and Compliance

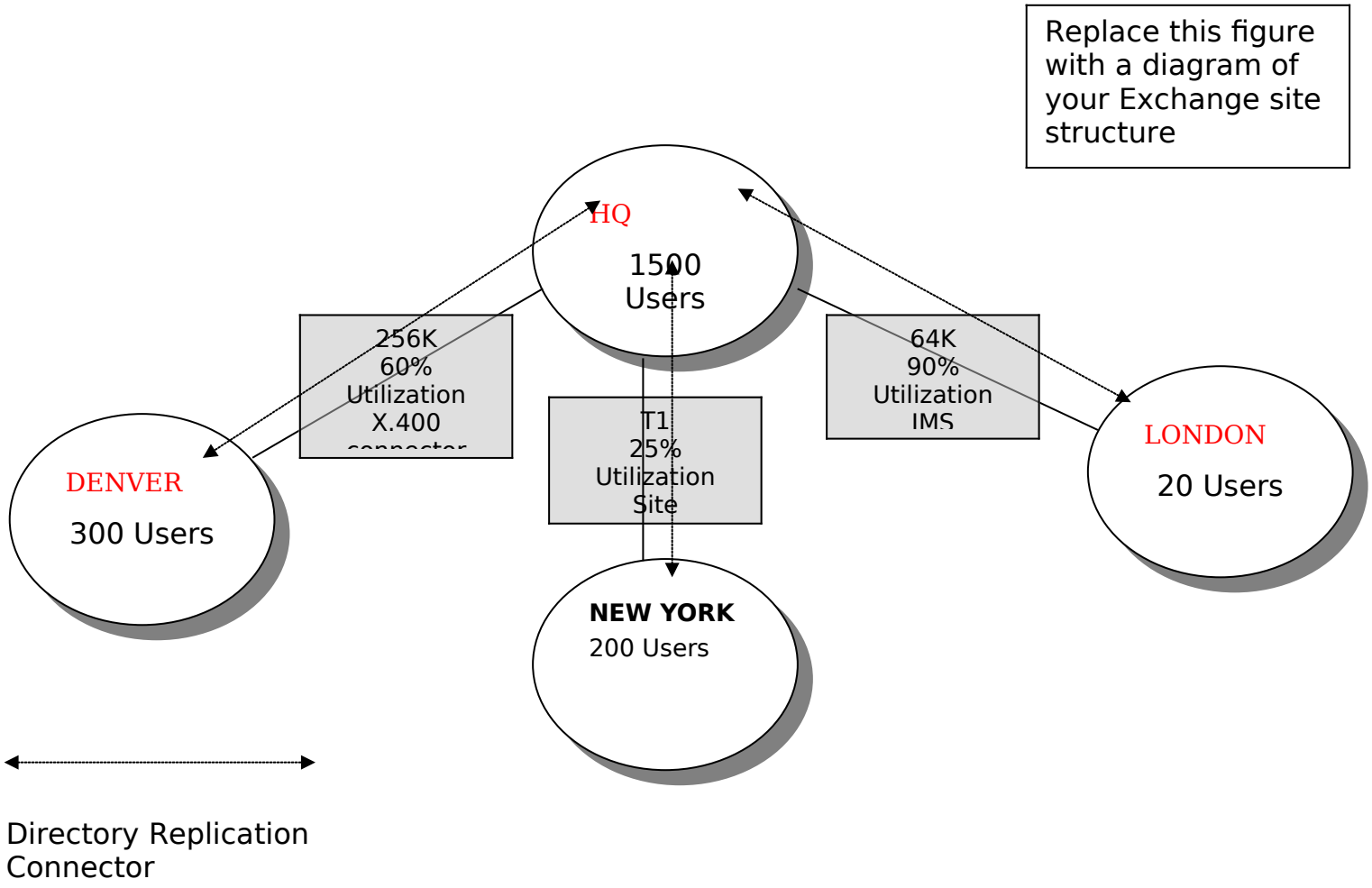
Please provide copies of any Service Level Agreements used for electronic mail services.

Describe what service metrics you use to measure the quality of electronic mail service.

Monitoring

Please describe what tools and techniques are used to monitor and report each of the metrics.

Present Current Exchange infrastructure Diagram



Identify Architecture Modifications for Windows 2000/Exchange 2000

Mixed Environment Considerations

Active Directory Connector
Routing in a Mixed Environment

Evaluate Synchronizing Active Directory with Exchange 5.5

Examine your domain structure and Exchange site topology
Review your network for ADC deployment
Consider specific network requirements
Determine which directory service you will manage objects from
Evaluate Administration of Objects from Active Directory
Evaluate Administration of Objects from Exchange Server 5.5 Directory Service
Define objects for directory synchronization
Map Exchange containers with Windows 2000 OUs

Design connection agreements
Document your ADC Connection Plan Strategy/Standards

Identify Coexistence Strategies

Identify Interoperability Issues within the Company (OSes Supported, Topology, Protocol, etc)
Identify Interoperability Issues with the Organizations Partners (Topology, Protocol, etc)
Identify Interoperability in Exchange 2000/Exchange 5.5 Mixed Environments and Down Level NT 4.0 Domains

Identify Upgrade Exchange 5.5 Upgrade Scenarios

In-Place Server Upgrade
Move Mailbox Upgrade
Consolidate Servers

Identify Interoperability Scenarios

Exchange 2000 in a Separate Organization from Exchange 5.5
Exchange 2000 in the Same

Organization as Exchange 5.5
Exchange 2000 in the Same Exchange 5.5 Site
Exchange 2000 Messaging in an Exchange 5.5 Site
Exchange 2000 Directory in an Exchange 5.5 Site
Exchange 2000 in Multiple Exchange 5.5 Sites

Identify Exchange 2000 Connector Strategy

Mail System Connectors
Exchange Lotus Notes Connector
Exchange MSMail Connector
Exchange Lotus cc:Mail Connector
Exchange Novell Groupwise Connector

Legacy Connectors Strategy
Exchange-Profs
Exchange-SNADS
Identify inter-organizational replication and directory synchronization considerations
Client strategy, standards and management
Define client strategy (Outlook, OWA,

etc.)	
Define client application requirements based on job function	
Define client configuration restrictions based on job function	
Configure approved client hardware (laptops and desktops)	
Configure basic Outlook 2000/Outlook Web Access User Interface options	
Multilanguage options	
Accessibility options	
Configure applications based on client requirements and administrative guidelines	
Document client strategy/standards	
Client Change Configuration Strategy	
Define user and organization change and configuration management needs	
Evaluate and select desired Exchange 2000 change and configuration management features	
Evaluate other applications for Software Distribution, etc (I.e. SMS, Tivoli Etc)	
Configure server shares and Group Policy for user data management	
Configure server shares and Group Policy for user settings management	

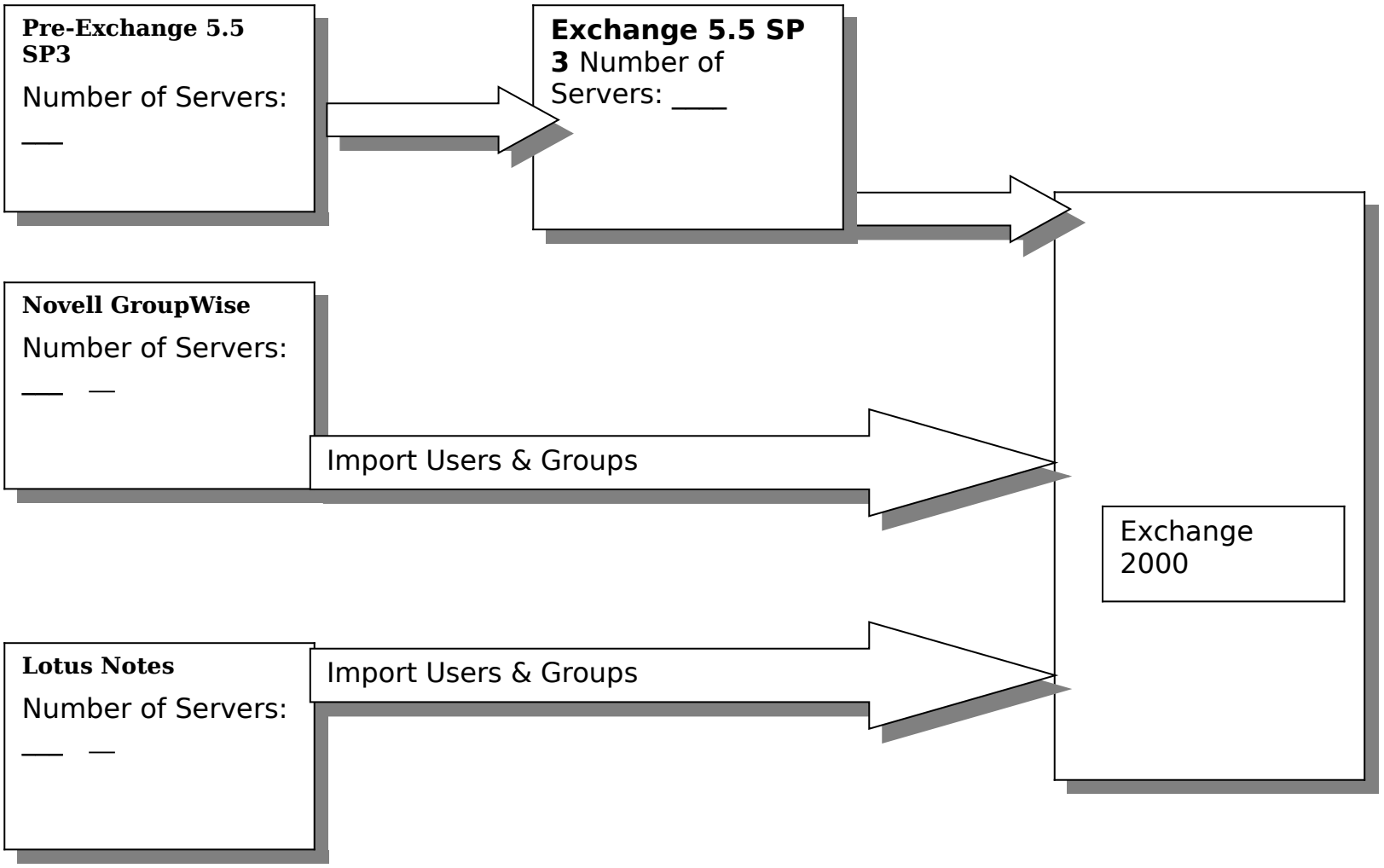
Email Security
S/MIME and PGP
Message Body Encryption
Digital Signatures
Key Management Service
Certificate Server

Security Planning
Intra-Company
Inter-Company
Trusted 3rd Party

Antivirus Protection Considerations
Backbone Infrastructure Virus Strategy
Local Server Virus Strategy
Desktop Virus Strategy

Determine your migration roadmap

Current System	*Upgrade*	*Migration*	*Import Users & Groups*	*Co-Existence*	*Comments*
Exchange 5.5 SP3	Yes	N/A	Via ADC	Yes	ADC required for co-existence
Exchange 5.5 pre-SP3	Yes	N/A	No	No	Recommend upgrade to SP3
Exchange 5.0	No	N/A	No	No	Upgrade to Exchange 5.5 SP3 first
Exchange 4.0	No	N/A	No	No	Upgrade to Exchange 5.5 SP3 first
Microsoft Mail	No	Yes	No	Yes	MS Mail connector required for co-existence
Lotus Notes	No	Yes	Yes	Yes	Lotus Notes connector required for co-existence
Lotus cc:Mail	No	Yes	Yes	Yes	cc:Mail connector required for co-existence
Novell GroupWise	No	Yes	Yes	Yes	GroupWise Connector required for co-existence
Calibra Share	No	Yes	Yes	No	


Pre-Exchange 5.5 SP3
Number of Servers:
___
Exchange 5.5 SP 3 Number of Servers: ____
Novell GroupWise
Number of Servers:
___ ___
Import Users & Groups
Exchange 2000
Lotus Notes
Number of Servers:
___ ___
Import Users & Groups

Identify Coexistence Strategies
Identify interoperability issues within the company (operating systems supported, topology, protocol, etc.)

Identify and analyze potential risks
Quantify potential impact of the risk

Client Strategy, Standards and Management
Define Client Strategy (Outlook, OWA, etc.)
Define client application requirements based on job function
Define client configuration restrictions based on job function

Configure applications based on client requirements and administrative guidelines
Document Client Strategy/Standards
Client Change Configuration Strategy

WINDOWS 2000 INFRASTRUCTURE

Security Considerations

Operational Security

Identify the security risks that apply to your Architecture

Assess solutions for identifiable security risks

Determine what part of the user community needs to use strong authentication for interactive or remote access login

Define policy for enabling Remote Access Services

Develop procedures/ communication regarding remote access procedures, including connection methods

Determine the local security policy requirements for different categories of systems on the network, such as desktops, file and print servers, email servers Define the Group Policy security settings appropriate to each category

Develop a test plan to verify your common business applications run correctly under properly configured secure systems

Define what additional applications are needed that provide enhanced security features to meet your organization security objectives

State your policies for securing the Administrator account and the administration consoles

Identify the situations where you plan to delegate administrator control for specific tasks
Identify your policies regarding auditing, including staffing
Document Security Strategy/Standards
Antivirus Protection Considerations
Backbone Infrastructure Virus Strategy
Local Server Virus Strategy
Desktop Virus Strategy
Antivirus Protection Considerations Complete
Mail Enabled Application Compatibility with Exchange 2000
Review Detailed Application Inventory Document
Consider reducing the number of applications you use and developing desktop standards
Develop a system for prioritizing applications
Prioritize the applications by how critical they are to running your business
Write a test plan, including test methodology, lab and test resource requirements, and schedule
Develop a test tracking system for capturing and reporting test results
Schedule test events
Test applications and record results
Report on testing progress

Resolve application incompatibilities
Application Compatibility with Exchange 2000 Complete

Develop Education/Training
Review Training Strategy/Standards
Develop/Acquire Training Materials
Review Education Materials
Approve Education Strategy and Materials

Assign a Domain Name System (DNS) name to each domain to create domain hierarchy
Plan a DNS server deployment
Design Active Directory Organizational Unit (OU) Plan
Define OUs to delegate administration
Define OUs to hide objects
Define OUs to apply Group Policy
Document impact considerations of changes to OU structures after deployment

Design a Site Topology Plan
Define sites and site links using the physical network topology
Obtain physical network topology map
Create site for each LAN or set of LANs connected by high-speed backbone

Create a site for each location lacking direct connectivity (SMTP mail)
Record internet protocol (IP) subnets for each site
Site links
Define site connections with site links
Define domain controller location per physical partition design
Define additional domain controllers
Analyze failover requirements
Analyze domain controller client workload

Define location of global catalog servers

Define location of DNS servers

Security Considerations
Identify the security risks that apply to your network
Assess solutions for identifiable security risks

Determine what part of the user community needs to use strong authentication for interactive or remote access login

Public Key Infrastructure
Identify certificate requirements
Define processes for issuing certificates
Define certification authority trust hierarchy
Define maintenance policies
Define disaster recovery strategies

Terminal Services
Select remote administration or server application mode
Determine licensing requirements
Determine how Terminal Services benefit the business environment
Develop a plan for implementing Terminal Services including networking, security, and domain structure
Establish guidelines and

standards for server deployment including CPU, storage, and so on

High-Availability Applications/Services (Clustering)
Identify specific high-availability needs for mission-critical applications and services
Determine your cluster requirements
Identify the network risks
Address the network risks
Determine which applications to use with network load balancing

Storage Management Strategies
Basic storage
Dynamic storage
Evaluate volume management
Evaluate mount points
Evaluate disk de-fragmentation strategies
Evaluate removable storage strategies
Evaluate remote storage strategies
Communicate to project sponsor,

senior management and project members PROOF OF CONCEPT
Evaluate risk as part of day-to-day project management

Develop Education/training
Review training strategy/standards
Develop/acquire training materials
Review education materials
Approve education strategy and materials

Proof of Concept (POC)
Prepare a test plan and checklists based on development/design solutions
Deploy development solution to POC lab machines
Perform full-cycle risk assessment
WAN connectivity
Remote connectivity
Peripherals
Fault tolerance techniques

PILOT DEPLOYMENT

Terminal Services
Prioritize/risk analysis

Pilot
Identify pilot scope and objectives
Identify pilot groups/individuals/resources/equipment
Develop communications materials for user community (FAQs, Web site, e-mails, etc)
Who will evaluate the Pilot?
How we will obtain user feedback
Identify Scope Changes
Identify Cost Factors
Identify Interoperability Issues
Identify Unanticipated Downtime
Pilot Test Complete

PLEASE PROVIDE PICTURE OF PILOT IMPLEMENTATION

The Deployment phase consists of multiple tasks that need to be executed. Below are just the main tasks in their category. If you want to dive deeper in individual tasks please refer to Exchange 2000 Project Template and Chapters 3 and 4

Windows 2000 Deployment / Exchange 2000 Deployment	***Prepared***	***Done***

APPENDIX IMPLEMENTATION REVIEW

Communications
Education/Training
Domain Migration
Active Directory
Security Infrastructure

Obtain user feedback
Evaluate lessons learned
Modify items as necessary
Establish ongoing infrastructure planning team
Post-implementation review complete
Microsoft Windows NT to Windows 2000 Deployment Template complete

Obtain User Feedback
Evaluate Lessons Learned
Modify Items as Necessary
Establish Ongoing Planning Team
Post Implementation Review Complete

Appendix 1 – Detailed List of Exchange Servers

Server DNS Name	Location	No. of Users	Comments
Exchangeserver1.acme.com	Bldg 5/Server Room 2	2,000	Mailbox limits 100Mb

Public Folder Servers

Server DNS Name	Location	No. of Users	Comments
Exchangeserver2.acme.com	Bldg 3/Server Room 3	1,500	40 Public Folders

Connector Servers

Server DNS Name	Location	Connector Type	From	To	Comments
Link1.acme.com	Server Room 1	SMTP	LAN	ISP	256K Link

The following configurations are only examples and are not recommendations. You should carry out your own analysis of

server capacity

Server Type	Processor	Memory	Network Card	Storage	Make and Model
Mailbox 1	Dual Xeon 550	512MB	2x100Mb 3Com	36GB RAID5 RAID 1 System/Boot	
Mailbox 2	Pentium 500	256MB	10/100 Intel	9GB	
Public Folder	Xeon 600	256MB	100Mb 3Com	18GB RAID1	

Appendix II – Local Site Information Sheet

Please have a site profile completed for each location and/or workgroup that will have electronic mail installed. The local-area site profiles include these types of information:

Contact Information Table—Contact Information

Organization name
Location
LAN contact (Name and telephone number)
LAN bridge/router contact (Name and telephone number)
E-mail address

Network Information

To document existing network features and capabilities, please fill in the following table.

Table—Network Information

Primary NOS
Number of installed servers
Number of servers planned
Number of installed users
Number of users planned
Dial-in server access?
Remote Node or Remote Control?
How many users?
Network topology (Token Ring, Ethernet)

Protocol (IPX, TCP/IP, DECNET, XNS, AppleTalk)
Type of bridges and routers

Please attach a site LAN diagram.

Desktop Computing Environment

To document the existing desktop computing environment, please fill in the following table.

Percentage desktops using Windows
Percentage desktops using Unix
Percentage desktops using Macintosh OS

E-Mail Information

To document the existing e-mail system, please fill in the following table.

Item	***Currently Installed***	***Planned within the next 12 Months***
Number of e-mail users		
Number of remote users		
What type of messaging client is used		

To document current e-mail usage, please fill in the following table.

What is the percentage of your electronic mail that stays within your workgroup?
What is the percentage of mail that stays within your geographical location?
What are the top three other geographical locations that mail is sent to?
What percentage of mail has attachments?